

Claims

1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of hematological diseases,
5 cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urolological disorders in a mammal comprising the steps of
 - i) contacting a test compound with a NPFF2 polypeptide,
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 - ii) detect binding of said test compound to said NPFF2 polypeptide.
2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of hematological diseases,
15 cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urolological disorders in a mammal comprising the steps of
 - i) determining the activity of a NPFF2 polypeptide at a certain concentration of a test compound or in the absence of said test compound,
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 - ii) determining the activity of said polypeptide at a different concentration of said test compound.
- 25 3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urolological disorders in a mammal comprising the steps of
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- i) determining the activity of a NPFF2 polypeptide at a certain concentration of a test compound,
 - ii) determining the activity of a NPFF2 polypeptide at the presence of a compound known to be a regulator of a NPFF2 polypeptide.
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4. The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.
 - 10 5. The method of any of claims 1 to 3, wherein the cell is in vitro.
 6. The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.
 - 15 7. The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.
 8. The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.
 - 20 9. The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.
 10. The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.
 - 25 11. The method of any of claims 1 to 3, wherein the compound is attached to a solid support.
 - 30 12. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of hematological diseases,

cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising the steps of

- 5 i) contacting a test compound with a NPFF2 polynucleotide,
- ii) detect binding of said test compound to said NPFF2 polynucleotide.
13. The method of claim 12 wherein the nucleic acid molecule is RNA.
- 10 14. The method of claim 12 wherein the contacting step is in or at the surface of a cell.
15. The method of claim 12 wherein the contacting step is in a cell-free system.
- 15 16. The method of claim 12 wherein polynucleotide is coupled to a detectable label.
17. The method of claim 12 wherein the test compound is coupled to a detectable label.
- 20 18. A method of diagnosing a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and
- 25 genito-urological disorders in a mammal comprising the steps of
- i) determining the amount of a NPFF2 polynucleotide in a sample taken from said mammal,
- 30 ii) determining the amount of NPFF2 polynucleotide in healthy and/or diseased mammals.

19. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising a therapeutic agent which binds to a NPFF2 polypeptide.
20. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising a therapeutic agent which regulates the activity of a NPFF2 polypeptide.
21. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising a therapeutic agent which regulates the activity of a NPFF2 polypeptide, wherein said therapeutic agent is
- i) a small molecule,
 - ii) an RNA molecule,
 - iii) an antisense oligonucleotide,
 - iv) a polypeptide,
 - v) an antibody, or
 - vi) a ribozyme.
22. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory

diseases like COPD and asthma, and genito-urological disorders in a mammal comprising a NPFF2 polynucleotide.

23. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising a NPFF2 polypeptide.

24. Use of regulators of a NPFF2 for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal.

25. Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal comprising the steps of

i) identifying a regulator of NPFF2,

ii) determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders in a mammal; and

iii) combining of said regulator with an acceptable pharmaceutical carrier.

26. Use of a regulator of NPFF2 for the regulation of NPFF2 activity in a mammal having a disease comprised in a group of diseases consisting of hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, and genito-urological disorders.
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